

# Work Order ID 81890

**\*81890\***

Page 1

Tuesday, March 20, 2012 11:05:55 AM

Item ID: D4131-045 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Base Assembly  
 Start Date: 3/20/2012 Start Qty: 9.00 **\*9\*** Cust Item ID:  
 Required Date: 3/22/2012 Req'd Qty: 9.00 **\*9\*** Customer:  
 Reference:

Approvals: Process Plan: MF Date: 2-03-20 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4131	B

100 0.00

**\*100\*** B12-3-20

Waterjet Memo 0.00

FLOW CNC Waterjet 1-Cut D4131-3 as per Dwg

Dwg Rev: B

Prog Rev: B

2-Deburr if necessary

110 QC2- Inspect parts off machine FAI/FAIB 0.00

**\*110\*** B1 2-3-20

QC Memo 0.00

Quality Control

(9)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 81890

**\*81890\***

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Tuesday, March 20, 2012 11:05:55 AM

Item ID: D4131-045 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Basic Assembly  
Start Date: 3/20/2012 Start Qty: 9.00 **\*9\*** Cust Item ID:  
Required Date: 3/22/2012 Req'd Qty: 9.00 **\*9\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00				<i>m</i>	<i>12</i>	<i>03</i>	<i>22</i> <b>(9)</b>
130 <b>*130*</b> Brake NC Brake NC	Bend as per dwg  Memo	0.00  0.00				<b>(9)</b>	<i>0</i>		<i>SB</i> <i>12/05/03</i>
140 <b>*140*</b> Small Fab Small Fab	  Memo INSTALL LABEL PLATE AS PER DWG	0.00  0.00				<i>9</i>			<i>FF</i> <i>12-05-04</i>

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

**Part No:** \_\_\_\_\_ **PAR #:** \_\_\_\_\_ **Fault Category:** \_\_\_\_\_ **NCR:** Yes No **DQA:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Resolution:** \_\_\_\_\_ **Disposition:** \_\_\_\_\_ **QA: N/C Closed:** \_\_\_\_\_ **Date:** \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 81890

**\*81890\***

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Tuesday, March 20, 2012 11:05:55 AM

Item ID: D4131-045 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Base Assembly  
 Start Date: 3/20/2012 Start Qty: 9.00 **\*9\*** Cust Item ID:  
 Required Date: 3/22/2012 Req'd Qty: 9.00 **\*9\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00							
<b>*150*</b>									
QC	Memo	0.00		05710604		(9)			
Quality Control									
160	Identify as per dwg & Stock Location: <u>132</u>	0.00							
<b>*160*</b>									
Packaging	Memo	0.00				(9)			12/5/48
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
<b>*170*</b>									
QC	Memo	0.00							12/5/89
Quality Control									

112-057

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Tuesday, March 20, 2012 11:05:54 AM

Page 1

Work Order ID: 81890

Parent Item: D4131-045

Parent Item Name: Base Assembly

Start Date: 3/20/2012

Required Date: 3/22/2012

Start Qty: 9.00

Required Qty: 9.00

Comments: IPP Rev:A 11.09.26 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4131-9 Label Plate		Manufactured	No			140	Each	59.0000	1	9		FF 12-05-04	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				GA		59							
				74258		1							
				74267		23							
				75067		35							
M304S18GA 304/316 .050 Sheet		Purchased	No			100	sf	191.1180	0.1613	1.5281053		18(2-3-20)	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT020		191.118							
				119032		10.3			119032				
				119383		60.818							
				120604		120							
MS20615-3M3 RIVET		Purchased	No			140	Each	92.0000	2	18		FF 12-05-04	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST323		92							
				119108		92							
				118384									

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

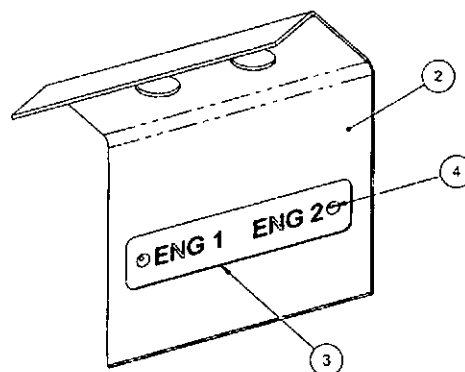
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



ITEM	QTY -045	PART NUMBER	DESCRIPTION
1	X	D4131-045	BASE ASSEMBLY
2	1	D4131-3	BASE
3	1	D4131-9	LABEL PLATE
4	2	MS20615-3M3	RIVET



**D4131-045 BASE ASSEMBLY**



**RELEASED**  
2011-09-21

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.35 lbs

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D4131	SHEET 3 OF 10
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	MANIFOLD ASSEMBLY	NTS
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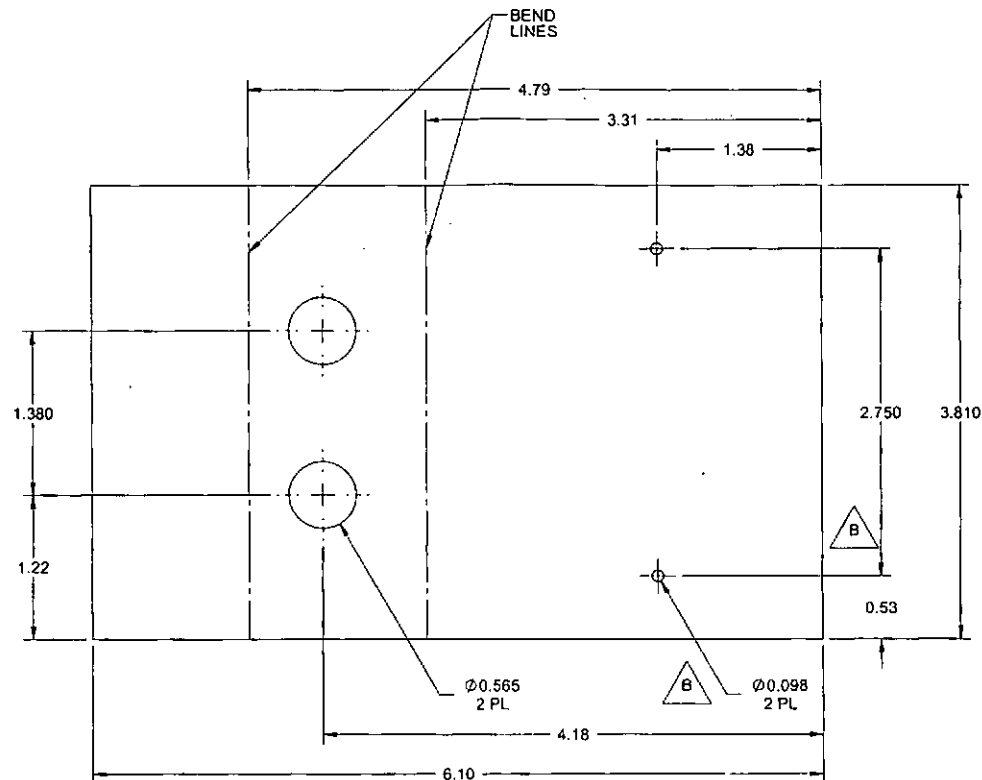
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D4131-3F FLAT PATTERN**

**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL ANNEALED 2B FINISH 0.050 (18 GAUGE) SHEET  
PER MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASTM A240  
OR ASME SA240  
PER DART SPEC. M304S18GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.33 lbs

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	KENT, WA	
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D4131	SHEET 7 OF 10
APPROVED	RF	TITLE	SCALE
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**RELEASED**  
2011-09-21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



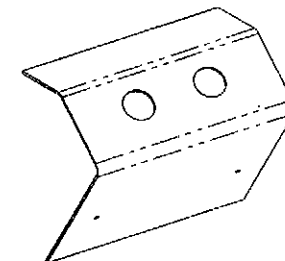
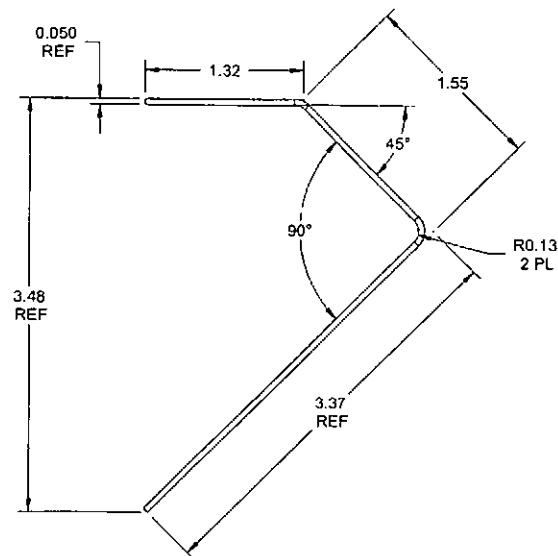
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



**D4131-3 BASE**  
MAKE FROM D4131-3F FLAT PATTERN

**RELEASED**  
2011-09-21

**NOTES:**

- 1) MATERIAL: MAKE FROM D4131-3F FLAT PATTERN
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.33 lbs

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	<b>D4131</b>	SHEET 8 OF 10
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>MANIFOLD ASSEMBLY</b>	NTS
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**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries